

# COVID-19 Morbidity and Mortality by Race, Ethnicity and Language in Washington State

Washington State Department of Health  
September 16, 2020

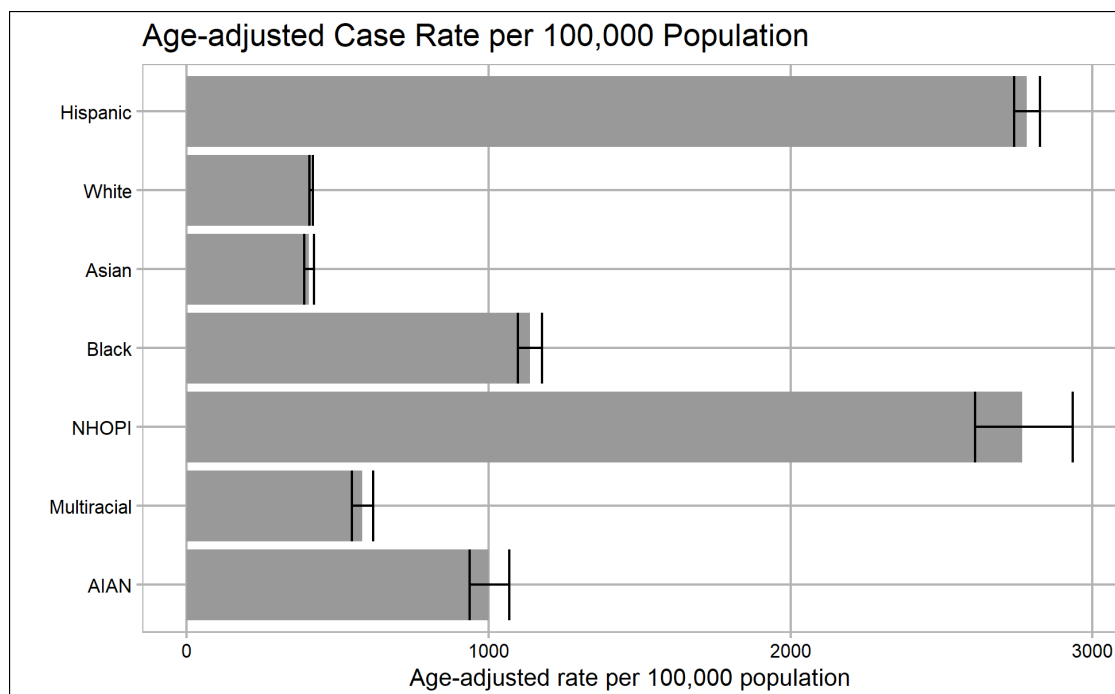
The impacts of COVID-19 morbidity and mortality have not been felt equally by all populations in Washington State. The pandemic has exacerbated the underlying and persistent inequities among historically marginalized communities and those disproportionately impacted due to structural racism and other forms of systemic oppression. This report provides an overview of confirmed COVID-19 case, hospitalization, and death rates by race and ethnicity at state and regional levels. It also provides counts and percentages of confirmed cases and hospitalizations by primary language spoken. All rates were age-adjusted to the Washington State population distribution using the Office of Financial Management's (OFM) April 1, 2019 population estimates by age, sex, race, and Hispanic origin. There are a number of limitations with this analysis. Analyses are limited to population groups available by OFM for the Washington State population and following Department of Health guidelines. Hispanic ethnicity is assigned first, irrespective of race, and then racial groups are identified for those identifying as non-Hispanic. Based on this, our reporting includes the following groups: Hispanic, and non-Hispanic race categorizations for White, Black, Native Hawaiian and Pacific Islander (NHOPI), Asian, and American Indian/Alaska Native (AIAN). While this allows one to assess information by race and ethnicity groups, this categorization is incomplete and does not reflect the diversity of people and experiences across the state. Additionally, there is a significant lack of race and ethnicity reporting for COVID-19 cases and hospitalizations (about 31% missing) and for deaths (about 1% missing). Primary language spoken is missing for about 48% of cases and hospitalizations. Age information is missing for a small percentage of cases (about 0.1%), and these cases are not included in age-adjusted rates. The lack of data limits our ability to draw firm conclusions; however, there are some very concerning patterns.

## Cumulative Age-adjusted COVID-19 Case, Hospitalization, and Death Rates by Race and Ethnicity per 100,000 Population

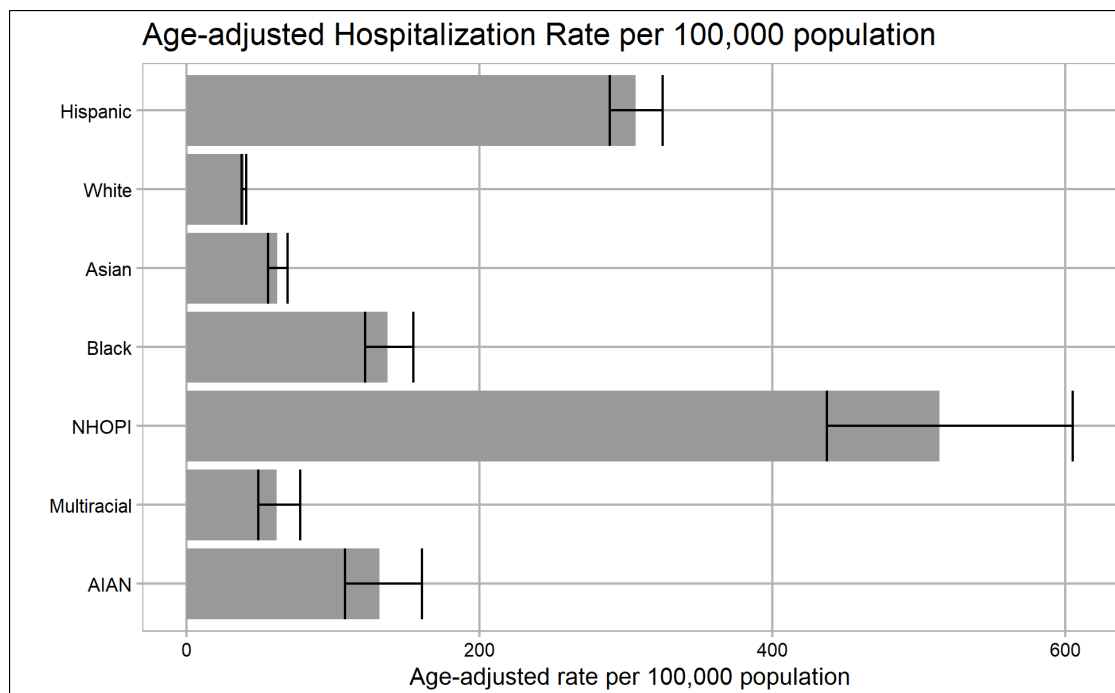
The table and figures below describe the counts and age-adjusted rates per 100,000 population in Washington by race and ethnicity for cases, hospitalizations, and deaths for the entire time period from the start of the pandemic through 2020-09-15 based on the specimen collection date. 95% confidence intervals are included in the charts. The data show that communities of color are disproportionately impacted by COVID-19 in significant ways. NHOPI and Hispanic people have the highest age-adjusted case rates and white and Asian people have the lowest case rates. Case rates for NHOPI and Hispanics are approximately seven times higher than Asians and Whites. Case rates for black people are approximately three times higher than Asian and Whites. Hospitalization rates are the highest for NHOPI and are lowest for white people. NHOPI hospitalization rates are 13

times higher and Hispanic hospitalization rates are 8 times higher compared to Whites. Hospitalization rates for black and AIAN people are 3.5 times higher compared to Whites. White people also have the lowest death rates, which are 6 times lower compared to NHOPI and over four times lower compared to AIAN and Hispanic people.

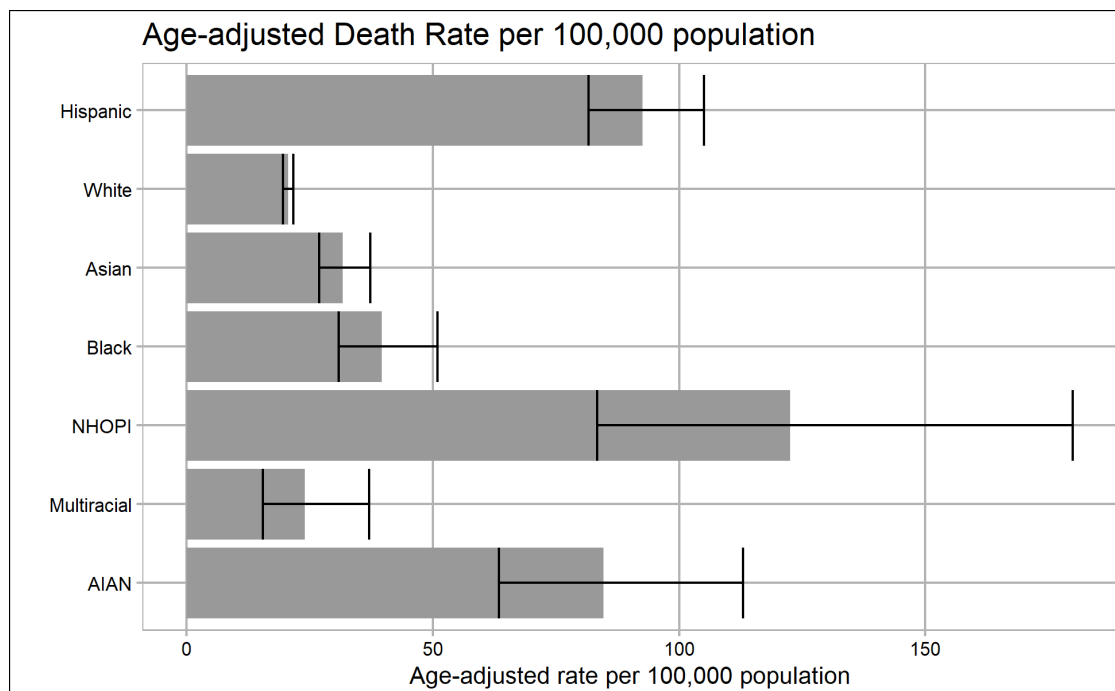
Race/Ethnicity	Case Count	Age-Adjusted Case Rate per 100,000	Hospitalization Count	Age-Adjusted Hospitalization Rate per 100,000	Death Count	Age-Adjusted Death Rate per 100,000
All Races	80788	1070.5	7127	94.4	2016	26.7
Unknown	24898		2048		27	
Hispanic	23411	2783.2	1537	306.5	283	92.6
White	21451	412.1	2397	39.1	1341	20.6
Asian	2739	404.8	346	61.8	150	31.7
Black	3320	1135.9	305	137.2	67	39.6
NHOPI	1418	2767.3	186	514.2	32	122.5
Multiracial	1473	581.1	88	61.5	23	24
AIAN	929	1000.3	107	131.6	53	84.6
Other	1149		113		40	



Source: Washington Disease Reporting System (WDRS)  
Includes data from 2020-01-19 to 2020-09-15



*Source: Washington Disease Reporting System (WDRS)*  
*Includes data from 2020-01-19 to 2020-09-15*

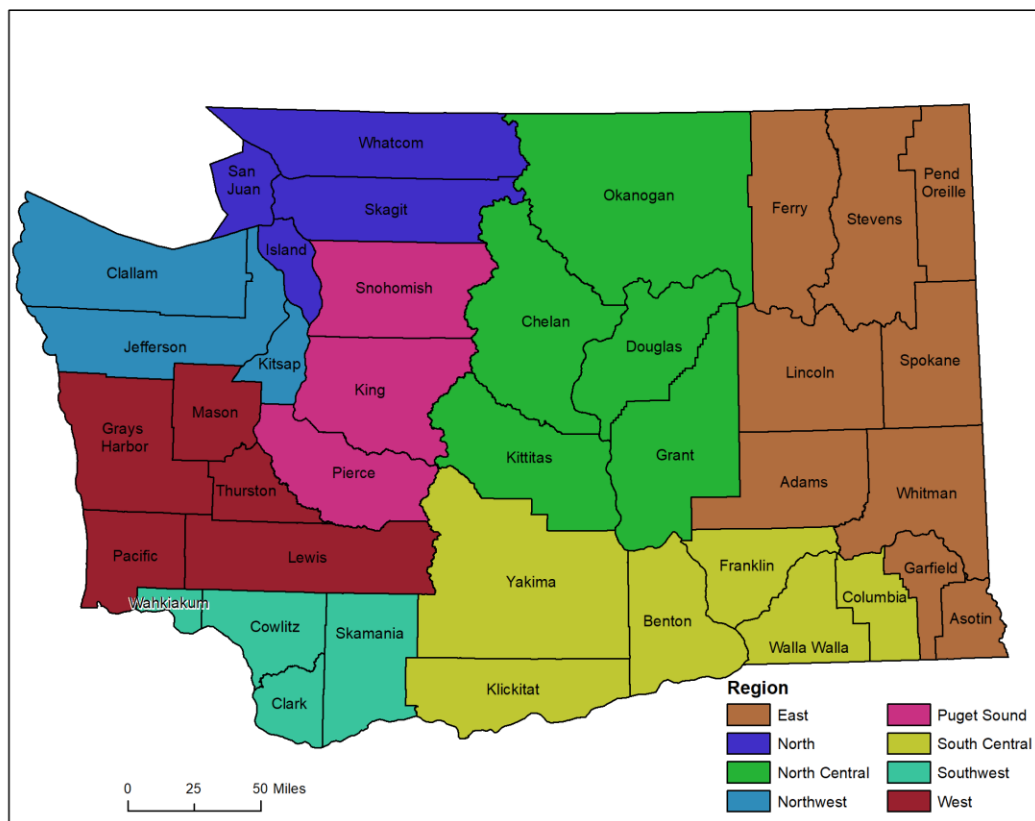


*Source: Electronic Death Registration System (EDRS) and Washington Health and Life Events System (WHALES)*  
*Includes data from 2020-01-19 to 2020-09-15*

## Washington Regions for Analysis

Some counties may not have sufficient case counts to analyze trends by race and ethnicity. In order to incorporate data from counties of all sizes, counties were assigned into one of 8 regions (see Map of Washington Counties and Analysis Regions below). The regions presented were developed by the Washington State Department of Health in order to better understand geographic differences in disease spread and how disease spread may be changing over time. While infection rates may not be the same within any given region, this regional grouping allows for more specific geographic analyses without excluding any counties or communities due to concerns about smaller numbers.

### Map of Washington Counties and Analysis Regions



### Missing Race Data by Region

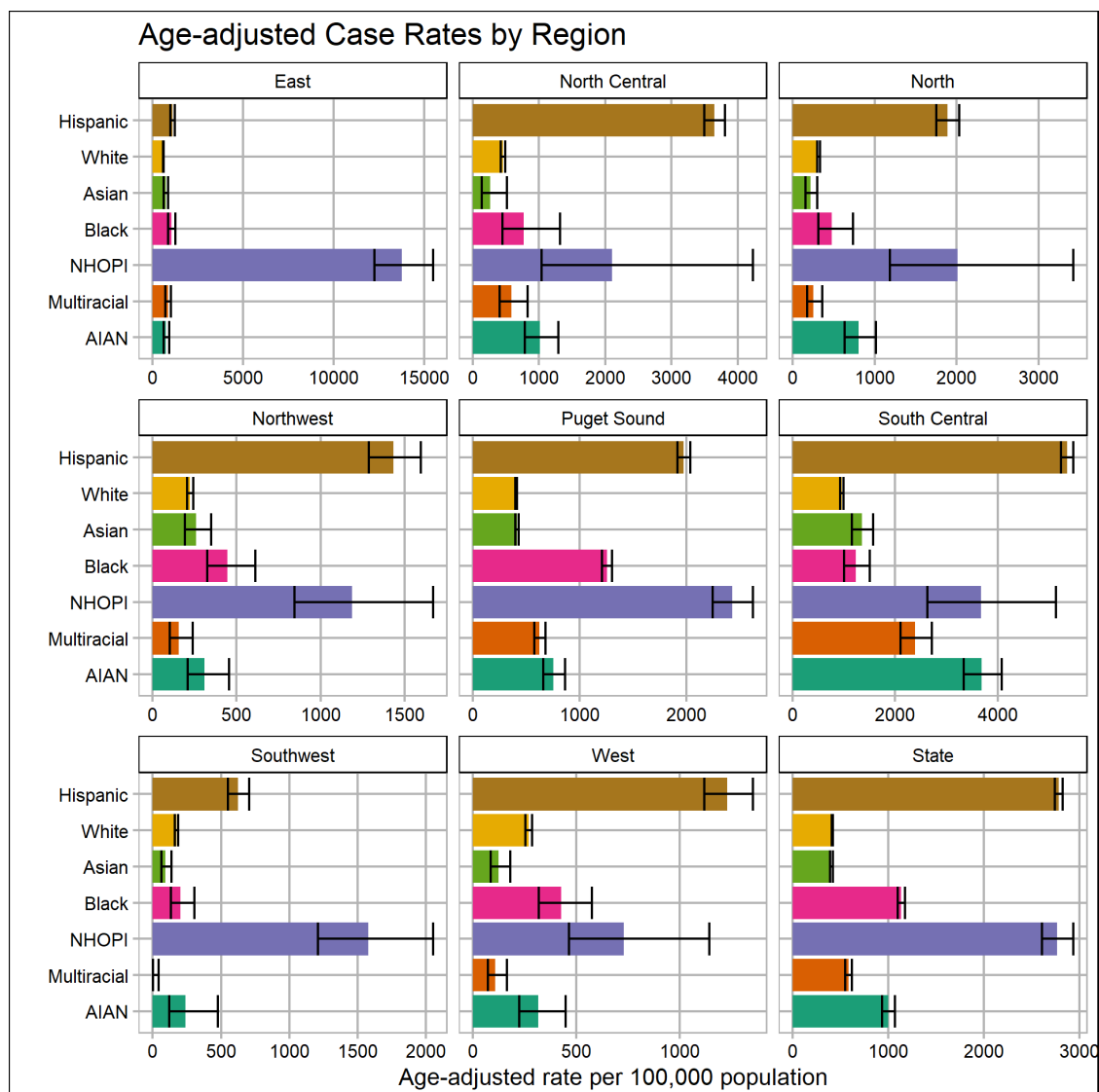
The following table summarizes missing race/ethnicity data by region. The total number of cases, the number of cases with missing data, and the percentage of cases with missing data are shown. The north central and southwest regions have the highest percentage of missing data and the north region has the lowest percentage of missing data.

Region	Case Count	Cases with Unknown Race/Ethnicity	% Cases with Unknown Race/Ethnicity
East	8123	3328	41%
North	2601	314	12%
North Central	7207	3219	45%
Northwest	1402	210	15%
Puget Sound	35039	10086	29%
South Central	20734	5148	25%
Southwest	3155	1864	59%
West	2258	448	20%
Unknown	311	307	99%

*Source: Washington Disease Reporting System (WDRS)*  
*Includes data from 2020-01-19 to 2020-09-15*

#### **Cumulative Age-adjusted Case Rates per 100,000 Population by Race, Ethnicity, and Analytic Region**

The figures below describe the age-adjusted case rates by race/ethnicity and region. They were calculated using the cases with known race/ethnicity (about 69% of all reported cases). It is important to note that the numeric scale differs across regions, so use caution when comparing two or more regions, as their scale will differ. The last figure presents the results for the whole state. These data show that COVID-19 is found in significant numbers across racial and ethnic groups throughout the state, and it is not confined to certain areas, such as rural, urban, or suburban regions. Population centers in Puget Sound contribute substantially to the counts. However less populated regions, like South Central Washington, have similar differences by race/ethnicity, yet even higher rates. Further, while extreme disparities exist, people of all races and ethnicities are impacted.

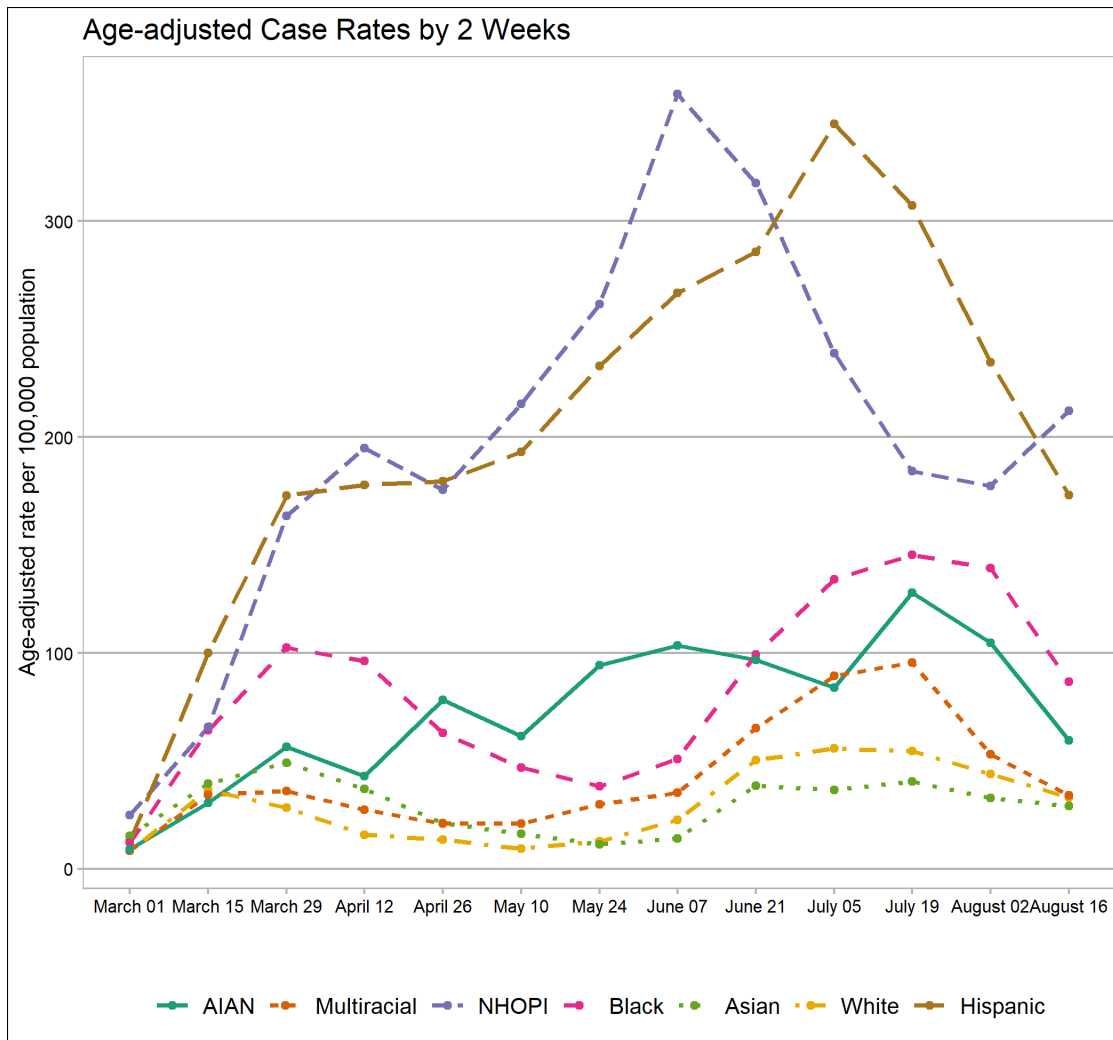


*Source: Washington Disease Reporting System (WDRS)*  
*Includes data from 2020-01-19 to 2020-09-15*

### Age-adjusted Case Rates per 100,000 population by Race and Ethnicity by 2 week period (March-August\* 2020)

\*August 2020 data include all cases with a specimen collection date through 2020-08-29 to include the most recent, complete two-week period of data collection.

Monthly confirmed case rates, adjusted for age by race and ethnicity, were calculated to better understand how race- and ethnicity-specific patterns may be changing over time. Monthly race-specific counts and age-adjusted rates have increased for Hispanics, Native Hawaiians or Other Pacific Islanders, and American Indian and Alaska Natives, while they have decreased for Whites.



Race/Ethnicity	2 Week Start Date	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Hispanic	March 01	88	12.9	10.1	16.5
	March 15	653	100.0	91.3	109.5
	March 29	1149	172.8	161.3	185.2
	April 12	1325	177.9	166.8	189.8
	April 26	1434	179.6	168.8	191.1
	May 10	1629	193.2	182.3	204.6
	May 24	1876	232.8	220.4	245.9
	June 07	2204	266.7	253.6	280.4
	June 21	2500	285.7	272.4	299.7
	July 05	3139	345.0	330.9	359.6
	July 19	2810	307.2	294.0	321.1

Race/Ethnicity	2 Week Start Date	Case Count	Age- Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	August 02	2111	234.7	223.0	246.9
	August 16	1579	173.1	163.3	183.6
White	March 01	502	8.5	7.8	9.3
	March 15	2050	36.5	34.9	38.1
	March 29	1586	28.3	26.9	29.8
	April 12	888	15.8	14.7	16.8
	April 26	768	13.7	12.7	14.7
	May 10	519	9.4	8.7	10.3
	May 24	672	12.8	11.9	13.9
	June 07	1166	22.6	21.4	24.0
	June 21	2478	50.3	48.3	52.3
	July 05	2801	55.7	53.7	57.9
	July 19	2791	54.7	52.6	56.7
	August 02	2229	44.0	42.2	45.9
	August 16	1661	33.2	31.6	34.8
Asian	March 01	90	15.3	12.3	19.0
	March 15	260	39.6	35.0	45.0
	March 29	324	49.2	44.0	55.0
	April 12	242	37.0	32.5	42.1
	April 26	143	21.3	18.0	25.2
	May 10	110	16.2	13.4	19.7
	May 24	79	11.4	9.1	14.3
	June 07	96	14.1	11.5	17.3
	June 21	268	38.5	34.0	43.4
	July 05	254	36.5	32.2	41.4
	July 19	276	40.4	35.8	45.6
	August 02	232	32.9	28.8	37.4
	August 16	205	29.1	25.3	33.4
Black	March 01	29	12.1	8.2	17.9
	March 15	169	64.3	54.8	75.4
	March 29	269	102.5	90.3	116.4
	April 12	271	96.3	85.1	109.0
	April 26	183	63.0	54.2	73.1
	May 10	140	46.9	39.5	55.7
	May 24	107	38.3	31.3	46.8

Race/Ethnicity	2 Week Start Date	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	June 07	157	50.8	43.3	59.7
	June 21	309	99.4	88.6	111.5
	July 05	417	134.2	121.6	148.0
	July 19	436	145.6	132.1	160.5
	August 02	409	139.2	125.9	153.9
	August 16	256	86.7	76.4	98.4
NHOPI	March 01	10	24.9	12.3	50.1
	March 15	25	65.8	41.1	105.3
	March 29	64	163.6	122.1	219.2
	April 12	100	195.0	157.7	241.2
	April 26	86	175.5	139.2	221.1
	May 10	115	215.4	176.4	263.1
	May 24	142	261.6	216.4	316.2
	June 07	196	358.9	308.3	417.8
	June 21	172	317.6	270.1	373.5
	July 05	129	238.9	198.0	288.2
	July 19	94	184.3	145.9	232.7
	August 02	89	177.3	140.8	223.4
	August 16	105	212.1	170.3	264.2
Multiracial	March 01	11	8.4	4.3	16.3
	March 15	67	34.4	26.2	45.2
	March 29	76	36.0	27.7	46.9
	April 12	52	27.4	20.0	37.6
	April 26	53	21.0	15.5	28.5
	May 10	48	21.0	15.3	28.8
	May 24	63	29.9	22.6	39.5
	June 07	105	35.4	28.3	44.2
	June 21	200	65.3	55.3	77.1
	July 05	226	89.5	76.9	104.2
	July 19	238	95.6	82.0	111.4
	August 02	152	53.2	43.9	64.4
	August 16	96	34.0	27.0	42.9
AIAN	March 01	7	9.2	4.1	20.4
	March 15	27	30.5	20.7	45.1
	March 29	49	56.5	42.4	75.2

Race/Ethnicity	2 Week Start Date	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	April 12	41	43.0	31.7	58.5
	April 26	75	78.3	62.4	98.3
	May 10	57	61.5	47.1	80.1
	May 24	87	94.3	76.2	116.8
	June 07	99	103.6	85.0	126.3
	June 21	89	96.7	78.2	119.8
	July 05	78	84.0	66.8	105.7
	July 19	120	128.0	106.6	153.7
	August 02	96	104.8	85.2	128.9
	August 16	56	59.5	45.5	77.7

*Source: Washington Disease Reporting System (WDRS)  
Data from 2020-03-01 to 2020-08-29*

### Cumulative Crude Case Counts and Percentages by Language Spoken

Analysis of language spoken provides another important method to understand health disparities and communities impacted by COVID-19. Use of one method alone may mask health disparities and community-specific impacts. Almost half of reported cases are missing information on primary language. Despite missing data, there are some important observations. The following table presents counts and percentages of confirmed cases, by primary language spoken. The percentage of the Washington State population 5 years and over with limited English proficiency that speak each language are also included to provide context. The Washington State data are from the Office of Financial Management 2016 estimate of population with limited English proficiency. Findings should be interpreted with caution due to the high proportion of missing data (48%).

Language	Case Count	% of Cases	% of WA Population with Limited English Proficiency*
All Cases	80830	100.0%	NA
Unknown Language	38820	48.0%	NA
Known Language	42010	52.0%	NA
English	30177	71.8*%	NA
Spanish	9935	23.6*%	6.4
Marshallse	303	0.7*%	0.1
Vietnamese	204	0.5*%	0.5
Russian	280	0.7*%	0.3

Language	Case Count	% of Cases	% of WA Population with Limited English Proficiency*
Chinese (all)	75	0.2*%	0.3
Ukrainian	115	0.3*%	0.2
Somali	126	0.3*%	0.2
Tagalog	64	0.2*%	0.2
Amharic	53	0.1*%	0.1
Other	678	1.6*%	NA

\*These percentages are out of the population with a known language

### Cumulative Hospitalization Percentages by Language Spoken

The following graph presents percentages of confirmed cases with each primary language who were hospitalized. The high rates of hospitalizations among cases whose primary language was other than English or Spanish, suggests that increased exposures and/or barriers to care may contribute to more severe disease in these populations. Languages with less than 10 individuals hospitalized were removed from this analysis to protect patient confidentiality. Findings should be interpreted with caution due to the high proportion of missing data (48%).

Language	Case Count	Hospitalization Count	% language specific cases hospitalized
All Cases	80830	7130	8.8%
English	30177	2599	8.6%
Spanish	9935	756	7.6%
Marshallese	303	49	16.2%
Vietnamese	204	35	17.2%
Russian	280	69	24.6%
Chinese (all)	75	16	21.3%
Ukrainian	115	36	31.3%
Tagalog	64	18	28.1%
Other	678	105	15.5%

Hospitalization by Primary Language Spoken

